



# WATERPROOFING

## CCW-711-70

### Description

CCW-711-70 is a 70-mil-thick composition of a self-adhering rubberized asphalt membrane laminated to a strong, heat-resistant woven polypropylene mesh. A siliconized release liner prevents the material from sticking in the roll and is easily removed for installation. Factory-controlled thickness ensures uniform thickness on the job, while the inherent waterproofing properties of the rubberized asphalt membrane create an excellent water barrier that makes this product ideal for use in Department of Transportation projects that require waterproofing membranes. CCW-711-70 Pre-Pave Sheet Membrane Waterproofing System will protect cracking in the asphalt overlay while preventing structural damage from water and de-icing salts.

### Features and Benefits

- Paving can begin immediately after installation, including the driving of asphalt and paving machines
- Woven mesh and elastomeric membrane can span moving cracks through extreme temperatures
- The membrane offers complete and interlaminary adhesion by bonding to both the substrate and the hot asphaltic overlay
- Strong mesh ensures membrane integrity; membrane self-heals small punctures and further damage is easily and quickly repaired

### Installation

**Surface Preparation:** New concrete shall be in place for 7 days (minimum) and shall be dry. Surface shall have a smooth finish and be free of voids, spalls, sharp protrusions, loose aggregate and form release agents. Curing agents containing wax, oil or pigment must not be used. Forms should be removed as quickly as possible. In the event of rain, concrete must be allowed to dry before primer is applied. For optimum results, CCW-711-70 should be applied when air and surface temperatures are about 40°F.

#### Bridge Deck Preparation

**Method One (Preferred):** Mill all loose, unbonded asphalt overlay from the existing deck. Place a bituminous/sand or fine aggregate mixture as a leveling course on the deck. Use CCW-201 Polyurethane Sealant or CCW LM-800XL as a 1" fillet at the intersection of the deck and curb or parapet wall for the transition from the horizontal to the vertical.

Place the CCW-711-70 membrane from the low to the high point of the deck, so that laps shed water. Overlap all edges at least 2½" (63 mm), stagger end laps and place such that overlaps are in the direction of the paving. End laps should be a minimum 5" (127 mm).

Place a 12"-wide strip of CCW-711-70 along the inside corner of the vertical

curb to a height just below the surface of the asphaltic overlayment, extending at least 6" onto the horizontal CCW-711-70 membrane. Place a bead of CCW-704 Mastic on the top edge of the strip. The curb or parapet wall should be primed if weather conditions require it. The membrane may be rolled in place with a rubber tire roller before tack coat is applied.

**Method Two:** Remove all old coating from the concrete by brush blasting. Repair all concrete defects. Prime the deck with CCW-550, CCW-702, or CCW-702LV primers during the morning hours. Place a cant strip of CCW-201 or CCW LM-800XL at the intersection of the deck and curb or parapet wall. Wait until in-gassing of the deck occurs, usually afternoon when the deck is cooling, before placing membrane. Place the CCW-711-70 membrane from the low to the high point of the deck, so that laps shed water. Overlap all edges at least 2½", stagger end laps and place such that overlaps are in the direction of the paving. End laps should be a minimum 5" (127 mm).

Place a 12"-wide strip of CCW-711-70 along the inside corner of the vertical curb to a height just below the surface of the asphaltic overlayment, extending at least 6" onto the horizontal CCW-711-70 membrane. Place a bead of CCW-704 Mastic on the top edge of the strip. The curb or parapet wall should be primed if weather conditions make it necessary. The membrane may be rolled in place with a rubber tire roller before tack coat is applied.

#### Parking Deck Preparation

**Terminations:** Install a 1" to 1½" cant of CCW-201 Sealant or CCW LM-800XL into the inside corner of the curb or parapet and the deck. Allow sealant to cure overnight. Apply flashing at curbs to a height just below the surface of the asphaltic overlayment and extend the flashing strip at least 6" onto the horizontal deck surface. For decks with two section drains, install a 3' x 3' sheet centered over the drain and terminate sheet under the clamping ring. Apply final sheet membrane over the flashing and seal the edges with CCW-704 Mastic.

**Joints and Cracks:** Apply primer and allow to dry. Apply a 12"-wide strip of CCW-711-70 Pre-Pave membrane over all cracks and non-working joints. Apply a double layer of CCW-711-70 Pre-Pave Membrane over expansion joints in the structural slab. Steel finger joints and other expansion joints should be placed at the level of the asphalt concrete overlayment.

**Priming:** Stir the primer thoroughly. Apply by spray or with a long nap roller to all concrete surfaces in an even coat. For the CCW-550 apply at 500 ft<sup>2</sup> per gallon. For the CCW-702 apply at 300 to 350 ft<sup>2</sup> per gallon. At 75°F, allow primer to dry 1 hour minimum, 8 hours maximum. After primer has a satisfactory cure when surface is tacky but does not transfer when touched. If CCW-711-70 Pre-Pave Membrane is not applied within maximum dry time, re-prime. When applying CCW-711-70 Pre-

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## CCW-711-70

Pave Membrane to an asphalt surface, primer is not required but surface must be free of dirt, moisture and other contamination.

**Application:** Apply CCW-711-70 Pre-Pave Membrane from low to high point, in a shingle fashion so that laps will shed water. Overlap all edges at least 2½", placed such that overlaps are in the direction of the paving. End laps shall be staggered and overlapped by a minimum 5" (127 mm). Place sheet membrane carefully so as to avoid wrinkles and fishmouths. After installation, roll with a metal roller wrapped with a resilient material 24" wide and weighing at least 100 lbs. or with a rubber tired roller. Seal all terminating edges and T-joints with CCW-704 Mastic.

### Asphalt Overlayment Placement

**Repairs:** Before paving begins, inspect all membrane for tears, punctures, fishmouths, air bubbles and voids due to misalignment at seams. Remove damaged membrane. Prime exposed concrete and allow primer to dry. Apply new section of CCW-711-70 Pre-Pave Membrane to primed concrete extending onto adhered membrane 6" on all sides. Firmly roll repair section to ensure a good seal. Apply CCW-704 Mastic to terminating edges of patch.

Slit fishmouths and overlap the edges. Prior to application of a minimum 6" x 6" patch, clean existing membrane by solvent wiping with Carlisle Weathered Membrane Cleaner. Place a patch of CCW-711-70 Pre-Pave Membrane over the repair and extend 6" in all directions. Firmly roll repair section to ensure a good seal. Apply CCW-704 Mastic to the terminating edges of patch.

**Apply Overlayment:** Prior to applying overlayment, spray anionic asphalt emulsion (or equal) tack coat over CCW-711-70 Pre-Pave mesh. CCW-711-70 Pre-Pave Sheet Membrane should be covered over with asphaltic overlayment within 7 days of membrane installation. The temperature of the asphaltic overlayment at the point of application shall be 275°F minimum, 325°F maximum. Asphaltic overlayment shall be compacted to a minimum of 2"-thick, at 275°–285°F. A wearing course may be applied at the discretion of the engineer. Asphaltic overlayment must not be applied if the CCW-711-70 Pre-Pave Sheet Membrane is wet. Pneumatic tire equipment is recommended. Equipment must be continuously inspected to ensure tracks or tires are free of burrs, stones and sharp projections that could damage the membrane.

### Limitations

Do not use in areas where membrane is subject to continuous exposure to sunlight. Do not apply primer or membrane to damp, frosty or frozen concrete. Best results are obtained when membrane is installed at temperatures above 40°F. Do not use over sealants containing coal tar or polysulfides.

### Warnings and Hazards

CCW-550, CCW-702, CCW-702LV, CCW-704 Mastic and Weathered

Membrane Cleaner contain flammable and combustible solvents. Avoid exposure to open heat and flame. Avoid breathing vapors. Use only in areas with adequate ventilation. Refer to MSDS for important warnings and product information.

### Storage

CCW-711-70 rolls should be stored on end, under cover, and in areas where the temperature is between 40° and 100°F (4.4° and 38°C). Do not double stack pallets.

### Packaging

Product	Packaging
CCW-711-70	12" x 100' roll (100 ft <sup>2</sup> ), 48 boxes per pallet 18" x 100' roll (150 ft <sup>2</sup> ), 36 boxes per pallet 24" x 100' roll (200 ft <sup>2</sup> ), 24 boxes per pallet 36" x 60' roll (180 ft <sup>2</sup> ), 25 boxes per pallet
CCW-550 Primer	5-gallon pails, (45 pails/pallet)
CCW-702 Primer	5-gallon pails, (45 pails/pallet)
CCW-702LV Primer	5-gallon pails, (45 pails/pallet)
CCW-704 Mastic	5-gallon pails, (45 pails/pallet)

### Typical Properties

Property	Method	Results
Thickness	–	70 mils
Tensile	ASTM D882	53 lb/in
Elongation*	ASTM D882	350%
Permeance	ASTM E96 (B)	.05 perms
Pliability	ASTM D146 180° bend	Passes @ -25°F .063" mandrel
Puncture	ASTM E154	200 lb (min)

\*% of elongation to ultimate failure of rubberized asphalt membrane

### Limited Warranty

Carlisle Coatings & Waterproofing Incorporated (Carlisle) warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any Carlisle materials prove to contain manufacturing defects that substantially affect their performance, Carlisle will, at its option, replace the materials or refund its purchase price. This limited warranty is the only warranty extended by Carlisle with respect to its materials. There are no other warranties, including the implied warranties of merchantability and fitness for a particular purpose. Carlisle specifically disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever. The dollar value of Carlisle's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the Carlisle material in question.